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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/204,479	12/03/1998	MARC TREMBLAY	004-3289	5561

22120 7590 02/28/2003

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EXAMINER
ENG, DAVID Y

ART UNIT	PAPER NUMBER
2155	26

DATE MAILED: 02/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/204,479	Applicant(s) TREMBLAY ET AL.	
	Examiner DAVID Y. ENG	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 February 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-17,19-21,23 and 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-17, 19-21, 23 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claims 2, 18 and 22 have been cancelled. Claim 24 has been added. The active claims are 1, 3-17, 19-21 and 23-24.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3-6, 8-17, 19-21 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baxter (USP 5,826,096) in view of Tanenbaum (text book).

With respect to claims 1, 3, 5-7, 17 and 19-23, Baxter taught a processor comprising:

A register file (260) divided into a plurality of segments,

A plurality of functional units (270) each associated with a register segment, and

A decoder (140) coupled to the register file and the functional units for explicitly deriving register specifiers.

Baxter does not show how register specifier is developed. See format 1 in Figure 3-19, section 3.3 (Addressing), section 3.3.2 (Direct Addressing), section 3.3.3. (Register Addressing) and section 3.3.5. (Indexing) on pages 79-85 of Tanenbaum. Figure 3-19 shows an instruction having a format of four fields. The first field is the opcode. The rest of the three fields represent the operands upon which the opcode is operated. If the opcode is an add operation, the add instruction means to add the two operands represented by the last two fields and to store the result in the register represented by the second field (page 80). The other sections in Tanenbaum teach different methods that a register specifier can be formulated for accessing the operands from registers in a register file. One of the methods is auto-indexing wherein a one or a

constant is automatically added to the previous address such that consecutively stored operands can be retrieved and operated upon by the opcode. If the operands of Baxter are consecutively stored, it would have been obvious to a person of ordinary skill in the art to use auto-indexing such that consecutively stored operands can be retrieved and acted upon by the opcodes.

With respect to claim 4, see register file segment in Figure 2 of Baxter. VLIW processor is well known in the art (see Architectural and Implementation of a VLIW Supercomputer in "Other Publication" in Baxter). Further, Baxter has a plurality of functional units.

With respect to claims 8-16, see double precision floating point operation in lines 23-24 of column 4 of Baxter.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baxter (USP 5,826,096) and Tanenbaum (text book) further in view of Raghunathan (USP 4,300,195).

Baxter and Tanenbaum teach claim combination set forth above. Call and Return Call instructions are well known in the art. See lines 26-31 of column 3 in Raghunathan. Raghunathan teaches transferring of control to a subroutine for handling the call interrupt in response to a call instruction. Raghunathan further teaches a pointer for pointing to the return address for returning control back to the interrupted program. It would have been obvious to a person of ordinary in the art to implement the Call and Return Call operations in Baxter such that control can be returned after interrupt.

Applicants' arguments are considered mooted in view of new grounds of rejections.

DAVID Y. ENG
PRIMARY EXAMINER